

*DZHEVAGA, I.I.*  
~~DZHEVAGA, I.I.~~

Intergranular diffusion in depositing copper and its alloys  
on steel. Avtom.svar. 10 no.6:87-90 N-D '57. (MIRA 11:1)

1.Zavod imeni Nosenko.

(Diffusion) (Copper plating)

AUTHOR: Dzhevaga, I.I. SOV 125-58-3-6/15

TITLE: Automatic Welding Under Flux of "LMts 58-2"-Brass (Avtomaticheskaya svarka pod flyusom latunni LMts 58-2)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 3, pp 42-49 (USSR)

ABSTRACT: Information is presented on new automatic welding technology for sheet and cast "LMts 58-2"-brass, developed at the Plant imeni Nosenko, and put into practical use at the same plant for the production of special brass pipes (Figure 5). Information includes the chemical composition of the "BrOTs4-3" welding wire (GOST 5221-50) and the weld metal obtained with "OSTs-45P" and "AN-20" fluxes. The new technology is recommended for soft brass only, and is applicable for automatic and semi-automatic welding processes. There are 5 tables, 1 figure, 4 graphs and 3 Soviet references.

Card 1/2

Automatic Welding Under Flux of "LMts 58-2"-Brass SOV 125-58-3-6/15

ASSOCIATION: Zavod imeni Nosenko (Plant imeni Nosenko)

SUBMITTED: November 20, 1957

1. Brass--Welding 2. Welding flux--Performance 3. Welding rods  
--Analysis

Card 2/2

125-58-7-6/14

AUTHOR: Dzhevaga, I.I.

TITLE: Automatic Welding of Aluminum Bronze Under Flux (Avtomaticheskaya svarka alyuminiyevoy bronzy pod flyusom)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 7, pp 36-43 (USSR)

ABSTRACT: The possibility of automatic electric arc welding of bronze on steel under flux and the fusing of bronze on steel was investigated. Specimens of different bronze grades were welded and fused with bronze electrodes of the following composition: 88.60 % Cu, 2.40 % Mn, 8.80 % Al, 0.30 % Fe. The following conclusions were made: in automatic welding of aluminum bronze under flux containing MnO and SiO<sub>2</sub>, an intensive interaction of metal and slag takes place, as well as a reducing of manganese and silicon due to the oxidation of aluminum. Therefore fluxes free from MnO and with a minimum SiO<sub>2</sub> content must be used. Best results were obtained with "AN-20" flux (chemical composition given in table 2) for welding butt, angular and overlap joints and for fusing "Br.AMts 9-2" bronze on low-carbon steel. The welded joints can be forged in a hot condition, which makes possible the designing of cast-welded structures with their subsequent forging and heat treatment.

Card 1/2

Automatic Welding of Aluminum Bronze Under Flux

125-58-7-6/14

5 Soviet references.

ASSOCIATION: Zavod imeni Nosenko (Plant imeni Nosenko)

SUBMITTED: January 15, 1958

1. Arc welding--Electrodes 2. Steel--Arc welding 3. Bronze  
electrodes--Applications 4. Aluminum bronze--Arc welding  
5. Welding fluxes--Test results

Card 2/2

DZHEVAGA, I.I.

Automatic welding under flux of LMts58-2 brass. Avtom.svar. 11  
no.3:42-49 Mr '58. (MIRA 11:4)

1. Zavod im. Nosenko.  
(Brass--Welding) (Electric welding)

25(1)

SOV/125-59-12-6/18

AUTHOR: Dzhevaga, I. I.

TITLE: Automatic Arc Welding under Flux of Brass Containing Lead

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 12, pp 43-51 (USSR)

ABSTRACT: There is no mention, in the literature known to the author, of the influence of lead on the quality of welds made under flux by the automatic arc welding of brass. In this article he examines the influence of lead on the stability of the weld metal against cracks and pores, upon the formation of the welds and their mechanical properties. In the conducted experiments the influence of iron, tin and other elements on the formation of cracks was also studied (table 1). No cracks appeared in the L62 brass weld metal when it contained up to 8% of Pb, but in the L90 brass, cracks formed when there was 2.3% of Pb. The lead contained in the weld metal had the form of small globular inclusions (figure 1), but the character of its distribution and influence on the crack resistance of the metal differed, depending upon the zinc content in the

Card 1/3

SOV/125-59-12-6/18

Automatic Arc Welding under Flux of Brass Containing Lead

weld. Figures 2 and 3 show the microstructures of weld metals containing approximately an equal quantity of lead but different quantities of zinc. The structure in figure 2 is crack-resistant, and the one in figure 3 is very liable to cracks. With the decrease in the quantity of zinc, the lead gathers mainly in the impurities along the borders of the grains and in the form of interlayers between the crystallization layers, and in this way furthers the formation of cracks (figure 4). The results of the experiments show that the crack resistance of the weld metal in brass depends not only on the quantity of lead in it but also on the character of its distribution. The distribution of lead in the form of interlayers along the borders of the grains is the most unfavorable one, and it occurs when the zinc content in the weld metal is below 6%. Data concerning the influence of different elements on the formation of pores in the weld is given in table 1. The density of the weld was high with a Pb content of up to 12%. At the same time, pores occurred

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SOV/125-59-12-6/18

Automatic Arc Welding under Flux of Brass Containing Lead

in welds which had no lead content, so lead cannot be considered as causing them; their formation depends on the conditions of welding. As to the mechanical properties of the weld, they deteriorate with the increase in the Pb content (table 4). The tests also showed that automatic arc welding can be successfully applied for welding rolled and cast L62, L062-1, LMts58-2, LS59-1, L90, LMtsZh55-3-1, LMtsS58-2-2 and LMtsOS58-2-2-2 brass containing lead in the quantities specified in GOST 1019-47, using the flux AN-20 and welding wire Br OTs 4-3. There are 4 photographs, 5 tables, 1 diagram and 10 Soviet references.

SUBMITTED: July 23, 1959.

Card 3/3

DZHEVAGA, I.I.

Welding of aluminum tanks. Trudy NTO sud.prom no.33;67-72 '59.  
(MIRA 13:9)

(Aluminum--Welding)

(Tanks--Welding)

38118  
S/125/62/000/006/008/013  
D040/D113

1.2300  
AUTHORS: . Podgayetskiy, V.V., and Dzhevaga, I.I.

TITLE: Effect of alloying elements on the weldability of copper by submerged arc

PERIODICAL: Avtomaticheskaya svarka, no. 6, 1962, 54-62

TEXT: Experiments were conducted to fill a gap in research data and select the best alloy elements for welds in submerged-arc welding of copper. Alloying was tried with Cr, Co, Fe, Ni, Mn, Cd, Zn, Sn, Al, Si, Ti, Nb, Mg, Pb, Bi, Sb, P, Te and As. Welds were produced in 10-12 mm thick copper plates with grooves imitating joints, into which powdered alloy elements were put. A 3 mm copper electrode wire, 450-470 amp, 30-35 v reversed polarity d.c., and an AN-20 (AN-20) flux were used. The composition of the latter is (%): 31.0 CaF<sub>2</sub>, 29.2 Al<sub>2</sub>O<sub>3</sub>, 20.9 SiO<sub>2</sub>, 13.1 MgO, 2.5 CaO, 2.4 K<sub>2</sub>O, 0.9 FeO. Cr and Zn proved to be the best additives. Cr refined the weld metal structure, raised the resistance to hot cracks, deoxidized the welding pool, only slightly affected the thermal and electric conductivity, but, however, increased the tendency

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Effect of alloying elements .....

S/125/62/000/006/008/013  
D040/D113

to porosity. Zn reduced the porosity and affected the thermal and electric conductivity slightly more than Cr. The drawback of Zn is the toxicity of its oxides. Wire containing a fair amount of Cr is required to obtain welds with over 1% Cr; special experiments were conducted, since no such wire is produced industrially. It is recommended to add Zn by using wire with 5% Zn which can be produced from standard  $\pi$  96 (L96) brass. A detailed discussion of experimental data, constitution diagrams and tables are included. Conclusions: Alloying with over 1.2% Cr, over 3.3% Co, or over 2.8% Fe results in the structure of the weld metal being fine due to the segregation of a refractory phase during crystallization. This phase is a solid solution of copper in Cr, Co, or Fe. Content of 0.7% and more P, 2% and more Sb, and 0.1% and more Bi causes hot cracks due to an extended crystallization temperature range and the prolonged presence of liquid layers between growing crystallites. Content of 1% and more Cr, 4% and more Mn, 0.8% Nb, 0.1% Hg, and 1.4% Pb causes porosity of the weld metal. Good welds can be obtained on copper and some copper alloys when Cr or Zn is introduced into the welding pool with welding wire. There are 11 figures and 3 tables.

Card 2/3

Effect of alloying elements .....

S/125/62/000/006/008/013  
D040/D113

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki  
im.Ye.O.Patona AN USSR (Electric Welding Institute "Order of  
the Red Banner of Labor" im.Ye.O.Paton, AS UkrSSR)  
(Podgayetskiy, V.V.); Nikolayevskiy zavod im. I.I.Nosenko  
(Nikolayev Plant im. I.I.Nosenko) (Dzhevaga, I.I.)

SUBMITTED: August 4, 1961

Card 3/3

S/125/62/000/008/005/008  
D040/D113

AUTHOR: Dzhevaga, I.I.

TITLE: The connection between the structure and crystallization crack resistance in welds on copper and copper alloys

PERIODICAL: Avtomaticheskaya svarka, no. 8, 1962, 56-62

TEXT: The effect of Pb and Bi on the hot cracking resistance was studied in submerged-arc welding experiments on copper, brass and aluminum bronze with Pb and Bi in powder form added to the grooves. Appearance, X-ray and microscopic tests were used for crack detection. The results proved that the effect of Pb and Bi depended on the form of crystallization: as little as 0.03% Pb and 0.005% Bi in the base metal caused cracks in coarse columnar structures with clear crystal boundaries, while disoriented two-phase ( $\alpha + \beta$ ) structures formed during rapid cooling were highly resistant to cracking, and no cracks formed at up to 1.15% Pb and 0.027% Bi content. However, porosity developed at 6.2% Pb. It is considered necessary to develop weldable copper

Card 1/2

The connection between the structure ...

S/125/62/000/008/005/008  
D040/D113

alloys forming an unbalanced two-phase structure during peritectic transformation and having high plasticity in the effective crystallization temperature range and as far as possible below the solidus. There are 13 figures and 2 tables.

ASSOCIATION: Nikolayevskiy ordena Lenina zavod im. I.I. Nosenko (Nikolayev "Order of Lenin Plant im. I.I.Nosenko.)

SUBMITTED: December 28, 1961

Card 2/2

DZHEVAGA, I.I., kand.tekhn.nauk.

Manufacture of welded brass bushings for stern tube fittings.  
Sudostroenie 30 no.1:51 Ja '64. (MIRA 17:3)



BALABAYEV, G.M., inzh.; DZHEVAGA, I.I., kand. tekhn. nauk; ZHURAVLEV,  
Yu.A., inzh.; ZAPOROZHETS, Ye.A., inzh.

Automatic welding under flux of shaft liners. Sudostroenie  
30 no.10:45-47 O '64. (MIRA 17:12)

BAIBAYEV, G.M., inzh.; DZHEVAGA, I.I., kand. tekhn. nauk; ZHIL'KOV, Yu.A.,  
inzh.; ZAPROZHETS, Ye.A., inzh.

Negative effect of the gold ring of liners on the corrosion and  
fatigue strength of tail shafts. Sudostroenie 30 no.7:51-55  
Jl '64. (USSR 1964)

DZHEVAGA, I.I.; ZHURAVLEV, Yu.A.

Conreccion between the structure and the resistance of joints in  
bronze to crystallization cracking. Avtom.svar. 18 no.11:16-19  
N '65. (MIRA 18:12)

1. Nikolayevskiy zavod im. Nosenko. Submitted January 11, 1965.

DZHEVAGA, I., kand. tekhn. nauk; IVASHCHENKO, G., inzh.; CHERNAYA, O.,  
tekhnik

Reconditioning the rudder stock by welding. Mor. flot 25 no.11:  
28-29 N '65. (MIRA 18:11)

L 24438-00 ENI(M)/ENP(W)/ENR(G)/ENP(V)/I/ENP(L)/ENP(AE) TOPIC 1 37/12  
 ACC NR: AP6012278 (N) SOURCE CODE: UR/0125/65/000/011/0016/0019

AUTHOR: Dzhevaga, I. I.; Zhuravlev, Yu. A.

ORG: Nikolayev Plant im. Nosenko (Nikolayevskiy zavod)

TITLE: Relationship between the structure of bronze weld joints and their resistance to crystallization cracks 18 18 18

SOURCE: Avtomaticheskaya svarka, no. 11, 1965, 16-19

TOPIC TAGS: bronze, arc welding, metal crystallization, phase composition, weld defect

ABSTRACT: The authors discuss the difficulties involved in eliminating crystallization cracks when welding OTs10-2 tin bronze. Welding tests of this material show that joints which form a two-phase  $\alpha+\beta$ -structure with peritectic conversion have greater resistance to the formation of crystallization cracks than joints with the structure of a single-phase  $\alpha$ -solid solution. The stability of the two-phase joints with respect to crystallization cracks is probably due to the rather high ductility of the seam metal at high temperatures caused by crystallization of this type of alloy during peritectic conversion as well as by phase transformations, which take place at a high rate below the solidus temperature. It is recommended that bronze rod containing 11-13% Sn and 2-4% Zn should be used for electric arc flux welding of OTs10-2 tin

UDC: 621.791.053 : 669.35.6 : 620.191.32

Card 1/2

L 24458-66

ACC NR: AP6012278

bronze. OTs12-3 bronze powder rod has been developed for this purpose. Orig. art.  
has: 6 figures.

SUB CODE: 11,13/

SUBM DATE: 11Jan65/

ORIG REF: 005/

OTH REF: 000

Card 2/2 *th*

ALIYEV, A.K.; SHUK-OVSEPYAN, O.T.; DZHEVANSKIR, D.A.

Oil- and gas-bearing prospects of the Babazanan field. Izv. vys.  
ucheb. zav.; neft' i gaz no.1:15-21 '58. (MIRA 11:8)

1. Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova.  
(Kura Valley--Petroleum geology)  
(Kura Valley--Gas, Natural--Geology)

REYKHMAN, I.R.; KERIMOV, B.M.; DZHEVANSHIR, D.A.

Preliminary prospecting in the region of the Apsheeron Shoal.  
Azerb.neft.khoz. 41 no.4:8-10 Ap '62. (MIRA 16:2)  
(Apsheeron Archipelago—Petroleum geology)



BIRYULIN, I., arkhitekt; DZHEVELIDZE, A., arkhitekt; KONDUKHOV, A., arkhitekt

Our experience in planning projects for collective farms. Sel',  
stroitel'stvo no. 12:20-22 D '58. (MIRA 12:1)

1. Respublikanskiy gosudarstvennyy institut po proyektirovaniyu  
sovkhoznogo stroitel'stva.  
(City planning)

DZHEVETSKAYA, I.A., kand.med.nauk; KRASNOKUTSKAYA, Ye.B.

Change in the sensitivity to insulin and the dynamics of glycosuria  
in diabetic patients during the administration of gangliolytic  
preparations. Terap.arkh. 34 no.2:85-90 '62. (MIRA 15:3)  
(AUTONOMIC DRUGS) (INSULIN SHOCK) (GLYCOSURIA)

DZHEURAYEV, A.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences  
at the Joint Scientific Council on Physicomathematical and Technical Sciences;  
Siberian Branch

"General Boundary Problems for Elliptical Equations Containing Nonanalytic  
Coefficients."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

DZHEYENTAYEV, Sh. D., Cand Med Sci (diss) -- "Age aspects of the arteries of the elbow joint". Frunze, 1959. 22 pp (Kirgiz State Med Inst), 250 copies (KL, No 9, 1960, 126)

DZHEYRANASHVILI, V. V., Sec'y Scientific Council, Georgian Sci. Res. Vet. Inst.

"Session of the Scientific Council of the Georgian Scientific Research Veterinary  
Institute"

(Veterinariya, 28, No. 6:64, June 1951)

SO: Trans. 178 by L. Lulich (in Vet. SRI)

KACHAKHIDZE, A.V.; DZHEYRANISHVILI, V.V., uchenyy sekretar'.

Twenty-fifth anniversary of the Georgian Scientific Research  
Institute of Veterinary Science. Veterinariia 32 no.5:93-94  
My '55. (MIRA 8:7)

1. Direktor Gruzinskogo nauchno-issledovatel'skego veterinar-  
nogo instituta (for Kachakhidze).  
(GEORGIA--VETERINARY RESEARCH)

DZHMUKHADZE, A.P.; DZHEYRANISHVILI, V.V.; DOSYCHEV, A.A. [deceased]

Role of conditioned reflexes in antibody formation. Zhur. vys.  
nerv. deiat 10 no. 4:599-604 J1-Ag '60. (MIRA 14:2)

1. The Georgian Zootechnical and Veterinary Institute.  
(CONDITIONED RESPONSE) (ANTIGENS AND ANTIBODIES)

IOSELIANI, K.M., zasluzhennyy veterinarnyy vrach Gruzinskoy SSR;  
DZHEYRANASHVILI, V.V., nauchnyy sotrudnik

Manufacture of preparations in an institute. Veterinariia 41  
no.11:101-103 N '64. (MIRA 18:11)

1. Direktor proizvodstva khimiko-terapevticheskikh i  
biologicheskikh preparatov Gruzinskogo zooveterinarnogo  
instituta (for Ioseliani). 2. Gruzinskiy zootekhnicheskoye-  
veterinarnyy uchebno-issledovatel'skiy institut (for  
Dzheyranashvili).



<sup>37053</sup>  
S/032/62/028/005/003/009  
B163/B102

1.8000

AUTHORS: Yakobson, A. M., and Dzhgalyan, K. M.

TITLE: Use of monocrystalline scintillators for X-ray vision

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 5, 1962, 577-583

TEXT: When hard  $\gamma$ -radiation from radioactive sources or the bremsstrahlung from accelerator targets is used for industrial radiographic control, monocrystalline CsI(Tl) scintillator screens are preferable to fluorescent screens or photographic emulsions, especially in continuous process lines. A prototype of a pipe detector ("gamma introscope") working with  $\gamma$ -radiation of 120 to 180 kev and a scintillator screen of 3 mm thickness and 70 mm diameter has been constructed, and examples for its application are given. Estimates of sensitivity and contrast are made when cavities within a metal (e.g. iron or aluminum) are to be detected. In Fig. 4 the results of such estimates are shown. There are 4 figures.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy imeni A. A. Baykov)

Card 1/1

X

YAKOBSON, A.M.; DZHGALYAN, K.M.

Experimental determination of the contrast of an X-ray picture  
showing flaws in materials. Zav.lab. 29 no.7:811-813 '63.  
(MIRA 16:8)

1. Institut metallurgii im. A.A.Baykova.  
(X-ray spectroscopy) (Materials--Testing)

... д. с. М.: Издательство, с. М.

ADDRES: Zavodskaya laboratoriya, v. 30, no. 10, 1945, 1946-1947

1-1 FAX: scintillation, material defect detection, neutron optical converter,

11. The authors presented a method of determining the



1. 2021

[illegible]






Card 3/4

ACCESSION NR: AP4046470

ENCLOSURE: 01

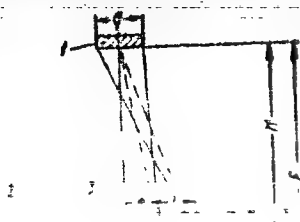


Fig. 1. Scheme of image transformation in scintillation roentgen-optical converter

1 - source; 2 - specimen; 3 - defect; 4 - scintillation screen; 5 - lens; 6 - detector

BAKHTADZE, I.D.; IZHGANADZE, O.V.

Using the ultrasonic impulse method in the investigation  
of the strength and uniformity of concrete in reinforced  
concrete panels. Trudy Inst. stroi. mekh. i seism. AN  
Grus. 10:187-194 '64. (MIRA 18:11)

ACCESSION NR: AT4007027

S/2598/63/000/010/0048/0054

AUTHOR: Mikheyev, S. V.; Chernova, T. S.; Dzhibuti, N. M.

TITLE: A study of some alloys of the Ti-Al-Cr-Fe-Si-B system, containing 6% Al

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy\*, no. 10, 1963.  
Issledovaniya titanovy\*kh splavov, 48-54

TOPIC TAGS: titanium alloy, titanium aluminum chromium alloy, titanium aluminum chromium system, iron containing alloy, silicon containing alloy, boron containing alloy, titanium complex alloy, alloy structure, phase transformation

ABSTRACT: A polythermic cross section of the six-component system Ti Al-Cr-Fe-Si-B containing 6% aluminum and with changing amounts of Cr, Fe, and Si (0.25%) was constructed on the basis of thermal analysis data, melting conditions, microstructure, hardness and electrical resistance. It was shown that the melting point of the alloys decreased from 163 to 148C as the amount of the alloying elements increased. The phase transformation in this system was investigated in the range of 950 to 1100C by thermal analysis and by changes in electrical resistance at the corresponding temperatures. It was concluded that the temperature of the alpha-beta transformation is altered slowly as the amount of alloying elements increased. The microstructure of the forged, hardened (1100 to 800C), and

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ACCESSION NR: AT4007027

annealed specimens was investigated by the etching method. All alloys in a cold-worked state and annealed at 800C showed the structure of the destructive beta solid solution. Changes in hardness determined in forged and hardened specimens (1100 to 800C) and in annealed specimens by means of Vickers apparatus, depending on thermal treatment, are shown. A polythermic cross-section of the tested system was shown and on the basis of this cross-section, the optimal composition of the alloys having high heat resistance and other desirable mechanical and chemical properties can be evaluated. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy AN SSSR)

SUBMITTED: 00

DATE ACQ: 27Dec63

ENCL: 00

SUB CODE: MM

NO REF SOV: 008

OTHER: 001

Card

2/2

ACCESSION NR: AP4033613

8/0032/64/030/004/0445/0447

AUTHORS: Yakobson, A. M.; Dzhegalyan, K. M.

TITLE: X ray optical transformation using a roentgen screen and monocrystalline scintillators

SOURCE: Zavodskaya laboratoriya, v. 30, no. 4, 1964, 445-447

TOPIC TAGS: x ray optical transformation, roentgen screen, monocrystalline scintillator, zinc sulfide, cadmium sulfide, silver, resolving power, x ray source PUP 1, x ray tube 3BPM 200, photomultiplier FEU 37, photomultiplier FEU 38, luminescent layer

ABSTRACT: Experiments were performed to compare the intrinsic haziness, resolving power, and radiances of a ZnS·CdS=Ag fluorescent screen with transparent monocrystalline screens of CsI(Tl) and NaI(Tl), using the quality of x-ray-optical transformation at tube voltages of 100-200 kv. A PUP-1 apparatus was used as the x-ray source along with a 3BPM -200 x-ray tube. For comparison with the monocrystalline screens, a commercial ZnS·CdS=Ag screen was used with a luminescence of 250 relative units. The monocrystalline screen was in the form of a plate with a diameter of 120 mm and a thickness of 3 mm. The thickness was so

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ACCESSION NR: AP4033613

chosen that complete absorption (95%) of the incident radiation took place up to a tube voltage of 200 kv. The radiances of the screens were compared with the aid of photomultipliers FEU-37 and FEU-38. The error due to the influence of scattered x-rays did not exceed 1%. As can be seen from the results plotted in Figure 1 of the Enclosure, the radiance of the roentgen screen ZnS·CdS=Ag sharply decreases with increase of the tube voltage, whereas the radiance of the mono-crystalline screen does not. It is the granular structure of the luminescent layers in the roentgen screen that leads to the haziness of the screen and significantly impairs the contrasts of small details. Orig. art. has: 2 figures.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

SUBMITTED: 00

ENCL: 01

SUB CODE: SS

NO REF SOV: 002

OTHER: 000

Card 2/3

ACCESSION NR: AP4033613

ENCLOSURE: 01

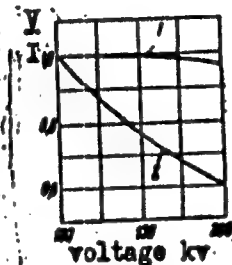


Fig. 1. The ratio of radiative current to the intensity of incident x-rays versus x-ray tube voltage  
(1) Scintillator CsI(Tl), 3 mm thick  
(2) Roentgen screen

3/3

Card

DZHGAMADZE, O. S.; KIZIRIYA, B. I.; LOMAYA, O. V.; MAKHARADZE, D. G.;  
TSINTSADZE, D. G.; EYDINOVA, G. Z.

Some data on the development of clouds over mountain ranges.  
Trudy Inst. geofiz. AN Gruz. SSR 20:237-244 '62.  
(MIRA 16:1)

(Clouds)

DZHGAMADZE, O.V., kand.tekhn.nauk

Planning the trans-Saharan railroad line. Transp.stroi. 10  
no.2:57 F '60. (MIRA 13:5)  
(Sahara--Railroads)

DZHGAMADZE, O.V., kand.tekhn.nauk; LAZEBNIKOV, Yu.S., kand.tekhn.nauk;  
LEBEDEV, A.I., kand.tekhn.nauk; GADEVAL'DT, V.V., inzh.; OZERSKIY,  
S.Z., inzh.

"Problems in planning of railroads with electric and diesel traction"  
by [prof.] A.I.Ioannisian and others. Reviewed by O.V.Dzhgamadze  
and others. Transp. stroi. 10 no.11:59-60 N '60. (MIRA 13:11)  
(Railroad engineering) (Ioannisian, A.I.)  
(Gorinov, A.V.) (Akinov, V.I.) (Kantor, I.I.)  
(Kondratchenko, A.P.) (Savchenko, M.B.) (Turbin, I.V.)

DZHGAGAMADZE, S.

DZHGAGAMADZE, S.

Today and tomorrow in a mine. Mast.ugl.4 no.8-7-11 Ag '55.  
(MIRA 8:10)

1. Glavnyy inzhener shakhty imeni Abakumova tresta Stalimugol'  
Stalinskoy oblasti  
(Donets Basin--Coal mines and mining)



DZHGAMADZE, Sh.V.

Construction of rural hospitals by collective farms as a means of  
improving medical service for the rural population. Sov.sdrav. 19  
no.1:20-25 '60. (MIRA 13:4)

1. Glavnyy vrach Gal'skogo rayona Abkhazskoy ASSR.  
(GALI DISTRICT (ABKHAZIA)--HOSPITALS, RURAL)

DZhGAMADZE, Sh. V., Cand. Med. Sci., — (diss) "Morbidity of the population and the organization of prophylactic work in rural areas, (according to data of the Gal'sk rayon of Abkhaz, ASSR)," Tbilisi, 1961, 20 pp (Tbilisi State Medical Institute), 160 copies (KL-Supp 9-61, 189-190)

DZHOAMADZE, O.V.

DZHOAMADZE, O.V., kandidat tekhnicheskikh nauk (Novosibirsk).

Softening the longitudinal track profile as a reserve for increasing  
the weight norms of trains. Zhel.dor.transp. 39 no.8:54-56 Ag '57.  
(MIRA 10:9)

(Railroad--Train load)

DZHGAMADZE, Sh.V.

Reorganizing the Public Health Service of Gali District,  
Abkhazian A.S.S.R. Sbor. trud. Med. ob-vo Abkh. 2:97-100  
'59.

(MIRA 14:10)

(ABKHAZIA--PUBLIC HEALTH)

DZHGAMADZE, Sh.V.

Increasing the qualifications of medical personnel in Gali District,  
Abkhazian A.S.S.R. Sbor. trud. Med. nauch. ob-vo Abkh. 2:101-105  
'59. (MIRA 14:10)

(ABKHAZIA--MEDICAL PERSONNEL)

DZHCAMADZE, Sh.V.

Eliminating malaria in Gali District, Abkhazian A.S.S.R. Sbor. trud.  
Med. nauch. ob-vo Abkh. 2:107-112 '59. (MIRA 14:10)  
(ABKHAZIA--MALARIA)

DZHGAMTZE, O. V.

DZHGAMTZE, O. V.: "The problems of designing detailed profile deformations when increasing weight norms". Moscow, 1955. Min Railways USSR. Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers imeni I. V. Stalin. (Dissertations for the degree of Candidate of Technical Science.)

SO: Knishnaya Letopis' No. 50 10 December 1955. Moscow.

*DZHGUN, N.P.*

STEPANOV, N.I.; DZHGUN, N.P.; LIBEROV, I.L.

Device for the removal of internal facets or rectangular grooves in piston rings. Avt.trakt.prom. no.11:30-31 N '53.

(MLRA 6:11)  
(Piston rings)



DZHIAN, Ya. G.

"Studies of the Amorphous State. XVII. Dielectric Losses in Swollen Rubbers,"  
Rubber Chem. Tech., No.14, pp. 877-82, 1941

Phys. Tech. Inst., Leningrad

DZHIAUKSHTAS, P. I.: Master Agric Sci (diss) -- "Varieties in form of the hazelnut and the forestry principles of organizing hazelnut cultivation in the forests of the Lithuanian SSR". Moscow, 1958. 20 pp (Inst of Forestry of the Acad Sci USSR), 150 copies (KL, No 6, 1959, 138)

*Dzhiaukshtas, P. I.*  
AUTHOR: None Given

26-58-5-26/57

TITLE: Acclimatization of the Tulip Tree in the USSR (Akklimati-  
zatsiya tyul'pannogo dereva v SSSR)

PERIODICAL: Priroda, 1958, Nr 5, pp 93-94 (USSR)

ABSTRACT: The tulip tree, *Liriodendron tulipifera* L. of the *Manoliacea* family, originating in North America, is cultivated in small amounts for ornamental and scientific purposes in the USSR, in the Caucasus, Crimea and southern parts of the Ukraine. It is not found in the north parts of the country due to severe winters. L. Chibiras, P. Dzhiaukshtas and V. Nekrasov of the Institut lesa AN SSSR (The USSR Academy of Sciences' Forest Institute) have described these trees which are of special importance with respect to selection problems. Professor A.A. Lypa (Kiyev) relates interesting details about the history of the tulip tree in Russia. The oldest and biggest tulip tree still existing in the USSR near the settlement Golovinka in the Lazarev district of the Krasnodar Kray on the Black-Sea shore of the Caucasus was planted in the 1840's. In 1956 it was 36 m high, had a circumference of 6.76 m and a crown of 25 x 27 m. There are 3 photos.

AVAILABLE:  
Card 1/1

Library of Congress  
1. Tulip tree - Growth 2. Plants - USSR

*DZHIAUKSHTAS, P.*

AUTHORS: Chibiras, L., Dzhiukshtas, P. (Kaunas) and Nekrasov, V. SOV-26-58-9-28/42  
(Moskva)

TITLE: A Rare Lime-Tree (Redkaya lipa)

PERIODICAL: Priroda, 1958, Nr 9, pp 111-112 (USSR)

ABSTRACT: There is a rare specimen of a big-leaved lime tree *Tilia platyphyllos* f. *laciniata* C. Koch (fig. 1) in the park of the dairy technical school "Bel'vederis" in the Lithuanian Vil'ki District. It has 3 kinds of leaves (fig. 2), pinnately lobed, entire-margined and intermediate stages. The tree has 3 trunks emerging from a common base and is 18 m high with a diameter of the tree top of 11.5 m. The phenomenon of the leaves seems to be a true mutation. Seeds are gathered from each branch separately, in order to prove this hypothesis. The same will be done by way of vegetative propagation. The phenomenon of pinnately lobed lime tree leaves has also been recorded in other individual trees of other parks in the Lithuanian Republic. There are 2 photos.

Card 1/2

A Rare Lime-Tree

SOV-26-58-9-28/42

ASSOCIATION: Litovskiy nauchno-issledovatel'skiy institut lesnogo khoz-  
yaystva /Kaunas (The Lithuanian Scientific Research Institute  
of the Forest Economy /Kaunas) Institut lesa Akademii nauk  
SSSR /Moskva (The Forest Institute AS USSR /Moscow)

1. Trees--Lithuania

Card 2/2

ALEKSANDROV, A.M., inzh.; BAZHENOV, V.S., inzh.; BOBROVNIKOV, B.N., inzh.; VAGANOV, M.P., inzh.; GUREVICH, B.M., inzh.; DZHIBELLI, V.S., inzh.; DROBAKH, V.T., inzh.; ISAKOVICH, R.Ia., kand. tekhn. nauk; KAPUSTIN, A.G., inzh.; KONENKOV, K.S., inzh.; MININ, A.A., kand.tekhn.nauk; PEVZNER, V.B., inzh.; PESKIN, G.L., inzh.; PORTER, L.G., inzh.; PRYADILOV, A.N., inzh.; SLUTSKIY, L.B., inzh.; FEDOSOV, I.V., inzh.; FRENKEL', B.A., inzh.; TSIMBLER, Yu.A., inzh.; SHUL'GIN, V.Kh., inzh.; ESKIN, M.G., kand. tekhn. nauk; VOROB'YEV, D.T., inzh. [deceased]; SINEL'NIKOV, A.V., kand. tekhn. nauk; SHENDLER, Yu.I., kand. tekhn. nauk, red.; NESMELOV, S.V., inzh., zam. glav. red.; NOVIKOVA, M.M., ved. red.; RASTOVA, G.V., ved. red.; SOLGANIK, G.Ya., ved. red.; VORONOVA, V.V., tekhn. red.

[Automation and apparatus for controlling and regulating production processes in the petroleum and petroleum chemical industries] Avtomatizatsiya, pribory kontrolya i regulirovaniya proizvodstvennykh protsessov v nefteyanoi i neftekhimicheskoi promyshlennosti. Moskva, Gostoptekhizdat. Book 3. [Control and automation of the processes of well drilling, recovery, transportation, and storage of oil and gas] Kontrol' i avtomatizatsiya protsessov bureniya skvazhin, dobychi, transporta i khraneniya nefti i gaza. 1963. 551 p.

(Automation)

(MIRA 16:7)

(Petroleum production -Equipment and supplies)

DZHIBGASHVILI, U. Z.

Cand Agr Sci, Diss -- "Establishment of the sowing method and norms for obtaining a high yield of winter wheat in conditions of the right banks of the Alazansk Valley". Tbilisi, Pub House of the Georgian Agr Inst, 1961. 28 pp, 20 cm (Min of Agr of the Georgian SSR. Georgian Order of Labor Red Banner Agr Inst), 180 copies, Not for sale (KL, No 9, 1961, p 186, No 24386). [61-52340]

DZHIBILOV, MIKHAIL

We are the masters of the soil; Dzauzikau, Gos. izd-vo Severo-Osetinskoi  
ASSR, 1948.



DZHIBLADZE, A.A.

Data on the aphids in the subtropical zone of Adzharistan [in Georgian with summary in Russian]. Trudy Zool.inst.AN Gruz.SSR 11:183-208 '53.  
(Adzharistan--Plant lice)

*DZHI BLADZE, A. A.*

USSR / General and Specialized Zoology. Insects.  
Systematics and Faunistics.

P

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 44677

Author : Dzhibladzo, A. A.

Inst : ~~AS Georgian SSR~~

Title : The Study of the Aphid Fauna (Aphididae) in  
the Trusov Gorge.

Orig Pub : Soobshch. AN GruzSSR, 1956, 17, No. 10,  
929-934.

Abstract : Thirty new aphid species were found, among them  
twelve were new to Georgia, including seven new  
to the entire Transcaucasian Region.

Card 1/1

DZHIHLADZE, A.A.

Studying plant lice occurring on Zelkova carpinifolia (Pall.) Dipp.  
Soob. AN Gruz. SSR 19 no.5:613-620 N '57. (MIRA 11:6)

1. Institut zoologii AN GruzSSR, Tbilisi. Predstavleno akademikom  
F.A. Zaytsevym [deceased].  
(Elm--Diseases and pests) (Tiflis--Plant lice)

DZHIHLADZE, A.A.

Materials on the study of plant lice in the eastern part of  
Kakhetia. Trudy Inst. zool. AN Gruz. SSR 16:291-321 '58.

(MIRA 11:12)

(Kakhetia--Plant lice)

DZHIPLADZE, A.A.

New species of aphid *Myzocallidium astragali* Dzhibl., sp.n. from the vicinity of Tiflis. Soob.AN Gruz.SSR 23 no.6:713-718 D '59.  
(MIRA 13:6)

1. Institut zoologii AN GruzSSR, Tbilisi. Predstavleno chlenom-korrespondentom Akademii L.P.Kalandadze.  
(Tiflis--Plant lice)

(DZHIBLADZE, A.A.--

Plant lice in the western part of the main range of the Caucasus.  
Trudy Inst. zool. AN Gruz. SSR 17:19-30 '60. (MIRA 13:11)  
(Caucasus--Plant lice)

DZHIBLADZE, A.A.

New plant lice species of the subfamily Eriosomatinae found on  
Zelkova carpinifolia in Georgia. Trudy Inst. zool. AN Grus. SSR  
17:229-238 '60. (MIRA 13:11)  
(Georgia--Plant lice) (Zelkova--Diseases and pests)

DZHIPLADZE, A.A.

A new species of plant lice *Drepanosiphon caucasicum*  
Dzhibl. n. sp. (Aphididae) from the mountains of Georgia.  
Soob. AN Gruz. SSR 29 no. 3:321-325 S '62 (MIRA 19:1)

1. Institut zoologii AN GruzSSR, Tbilisi. Submitted February  
6, 1961.



DZHIPLADZE, A.A.

*Xerophylla notabilis* Perg. feeding on pecan leaves in Georgia. Soob.  
AN Gruz. SSR 32 no.2:429-433 '63. (MIRA 18:1)

1. Institut zoologii AN Gruzinskoy SSR, Tbilisi. Submitted May 30, 1962.

DZHIPLADZE, A.A.

A new species of plant lice *Bursocryptoides zelkovaecola*  
Dzhibl. sp. n. from Georgia. Soob. AN GruzSSR 37 no.2:  
427-433 F '65. (MIRA 18:3)

1. Institut zoologii AN GruzSSR, Tbilisi. Submitted April 28, 1964.

MAKSUDOV, G.A., kand.med.nauk; DZHIKADZE, D.N.

Review of the topic plan for research in the field of neuropathology  
in the Soviet Union during 1959. Vest. AMN SSSR 11 no.11:62-72 '59.  
(MIRA 13:3)

(NERVOUS SYSTEM dis.)

SHMIDT, Ye.V.; DZHIHLADZE, D.N.

Clinical aspects of thrombosis of the carotid artery in the neck.  
Zhur.nevr. i psikh. 59 no.8:897-906 '59. (MIRA 12:12)

1. Institut nevrologii (dir. - prof. N.V. Konovalov) AMN SSSR,  
Moskva.

(CAROTID ARTERIES, dis.)  
(THROMBOSIS)

DZHIBLADZE, D.N.

Status of the depressor apparatus of the carotid sinus in various  
forms of hypertension. Zhur.nevr.i psikh. 59 no.11:1384-1389 '59.  
(MIRA 13:3)

(HYPERTENSION pathol.)  
(CAROTID SINUS pathol.)

SHMIDT, Ye.V.; DZHIHLADZE, D.N.

Thrombosis of the extracranial and intracranial sections of  
the internal carotid artery. Nauch. inform. Otd. nauch. med.  
inform. AMN SSSR no.1:54-55 '61 (MIRA 16:11)

1. Institut nevrologii (direktor - deystvitel'nyy chlen AMN  
SSSR prof. N.V. Konovalov) AMN SSSR, Moskva.

\*

CHUKHROVA, V.A.; VERESHCHAGIN, N.V.; DZHIRIADZE, D.N.

Change in the electrical activity of the brain in lesions of  
the large cerebral vessels (carotid and vertebral arteries.  
Zhur.nevr.i psikh. 62 no.8:1181-1188 Ag '62. (MIRA 15:12)

1. Institut nevrologii (dir. - prof. N.V.Kononov) AMN SSSR,  
Moskva.

(CAROTID ARTERY--DISEASES) (VERTEBRAL ARTERY--DISEASES)  
(ELECTROENCEPHALOGRAPHY)

SHMIDT, Ye.V.; DZHIKLADZE, D.N.; LYUDKOVSKAYA, I.G.

Bilateral thrombosis and stenosis of the carotid arteries.  
Zhur. nevr. i psikh. 64 no.10:1433-1441 '64. (MIRA 17:11)

1. Institut nevrologii (direktor - prof. N.V. Koncvalov)  
AMN SSSR, Moskva.



DZHIBLADZE, E. A.

DZHIBLADZE, E. A.--"The Seismicity of the Greater Caucasus." Geophysics  
Inst, Acad Sci USSR. Moscow, 1955. (Dissertation for the Degree of  
Candidate of Physicomathematical Sciences).

SO: Knizhnaya Letopis' No. 27, 2 July 1955

DZHIHLADZE, Ye. A.

USSR/Geophysics - Seismic energy

FD-2773

Card 1/ 3

Pub 45 - 7/13

Author : Solov'yev, S. L.; Dzhibladze, E. A.

Title : Notes. Variation of flux of seismic energy with epicentral distance

Periodical : Izv. AN SSSR, Ser. geofiz., Sep-Oct 1955, 462-463

Abstract : In an unbounded homogeneous space the flux of energy of elastic waves decreases in proportion to the square of the distance from the source:  $E \approx 1/r^2$  (in consequence of the increase of the surface of the wave front). In the half-space close to the surface the energy flux must decrease more rapidly, since with incidence of the waves upon the boundary there arise surface waves and energy of bulk waves in part passes over into energy of surface waves. As shown by H. Lamb ("propagation of tremors over surface of elastic solid," Phil. Trans. Roy. Soc., London, 203, 1904), in the case of a concentrated surface source the energy flux of the bulk waves propagated along the boundary decrease in proportion to the fourth power of the distance:  $E \approx 1/r^4$ .

FD-2773

Card 2/3

Abstract

: The authors obtained certain empirical data on the character of the decrease in energy flux of transverse wave at small epicentral distances ( $50 \text{ km} < D < 500 \text{ km}$ ) for the earthquakes of Caucasus (depth of center: 5 to 20 km). They found the dependence of  $E$  on  $r$  in the form:  $E = a/r^k$ ; then  $\log E = k \cdot \log r$ . The time average energy flux through a point of observation is  $E = 2\pi^2 \rho c A^2 / T^2$ , where  $\rho c$  is the acoustic rigidity of the rock at the place of observation, and  $A, T$  are amplitude and period of sinusoid a section of which can approximate the actual movement of the medium in the incident wave.

Using this formula the authors constructed the curves  $\log E = f(\log D)$  for the direct transverse wave  $S$ . Measurements unavoidably contain errors since in large part the record of the direct wave is superimposed with a record of diffracted and reflected waves, but these errors cannot essentially influence the final results in view of the small relative intensity of the indirect waves. The mean angular coefficient of 15 individual curves obtained equals  $3.8 \pm 0.3$  (Figure 2. Individual curves and mean curve of variation

FD-2773

Card 3/3

Abstract

: of energy flux of wave  $S$  as a function of epicentral distance for earthquakes of Caucasus); consequently in the investigated range of distances one obtains  $E = a/r^{3.8 \pm 0.3}$ , which is close to Lamb's results for the half-space. Data on the variation of flux of seismic energy with distance was obtained by the authors also in a study of the limiting distance of earthquake recording. They remark that one can carry out a relative classification of earthquakes according to the magnitude of the energy without knowing the exact value of  $k$ . For this it is sufficient to compare the energy fluxes of various earthquakes (with identical depth of center) at one and the same epicentral distance; vide Figure 1 (Dependence of limiting distance of earthquake recording as a function of the magnitude of the earthquake energy, for earthquakes of Caucasus with  $D \approx 200$  km on the assumption  $k = 2$ . It is found that the slope of the curve  $\log E = f(\log D)$  gives for  $k$  a value of 3.3.

Institution

: Geophysical Institute, Academy of Sciences USSR

Submitted

• April 22, 1955

SAVARENSKIY, Ye.F. ; DZHIKLAIDZE, E.A.

Seismicity of the Greater Caucasus. Izv.AN SSSR.Ser.geofiz. no.5:  
577-583 My '56. (MLRA 9:8)

1. Akademiya nauk SSSR, Geofizicheskiy institut i Akademiya nauk  
Grus.SSR, Institut geofiziki.  
(Caucasus--Seismometry)

SOV/169-59-4-3411

Translation from: Referativnyy zhurnal. Geofizika 1959, Nr 4, p 24 (USSR)

AUTHOR: Dzhibladze, E.A.

TITLE: ✓ Earthquakes in the Great Caucasus

PERIODICAL: Tr. In-ta geofiz. AS GruzSSR 1957, Vol 16, pp 103 - 114

ABSTRACT: The seismism of the Great Caucasus is studied; earthquakes are discussed whose epicenters are determined on the basis of experimental data obtained in the time from 1912 to 1953. Moreover, some powerful earthquakes are discussed, which occurred in recent years and whose epicenters were determined without experimental data. The classification of earthquakes is performed in dependence on the amount of energy of the elastic waves caused by the earthquake, and on the accuracy with which the location of the epicenter is determined. The location of the epicenter is obtained by the surveying intersection method; the earthquake energy is computed according to a special scale of the ultimate recording range; the scale was designed especially for earthquakes in the Great Caucasus. Calculations for evaluating the

Card 1/2

Earthquakes in the Great Caucasus

SOV/169-59-4-3411

accuracy of locating the epicenter are carried out for the different regions of the Great Caucasus. The author shows that, with the present net of seismic stations, the position of the epicenter can be determined with an error of  $\pm 20$  km in the case of the most favorable distribution of the stations in respect to the epicenter. The analysis of the epicenter map charted shows that the zones of the most powerful earthquakes appear simultaneously as zones of weak earthquakes. The main zone of seismism of the Great Caucasus coincides with the direction of the Great Caucasian range and can be linked with the boundary between the rising Main Caucasian range and the descending Alasano-Agrichay depression adjacent to the Main Caucasus. ✓

N.A. Vvedenskaya

Card 2/2

Dzhibladze, E. A.

SAVARENSKIY, Ye.F.; DZHIBLADZE, E.A.

Energy of earthquakes in the Greater Caucasus. Soob. AN  
Grus. SSR 18 no.1:25-29 Ja '57. (MLRA 10:5)

1. Akademiya nauk Gruzinskoy SSR i Institut geofiziki Tbilisi.  
Predstavleno akademikom A.I. Dzhanelidze.  
(Caucasus--Earthquakes)



DZHIRBLADZE, E.A.

DZHIRBLADZE, E.A.

Uneven radiation of energy from a focus and the absorption coefficient of compressional waves. Soob.AN Gruz.SSR 19 no.1:33-36 J1 '57.

(MIRA 10:12)

1: AN GruzSSR, Institut geofiziki, Tbilisi: Predstavleno chlenom-korrespondentom Akademii V.I.Mamasakhlisovym.  
(Seismic waves)

DZHIBLADZE, E.A.

Determining the focal depth and mean velocity of seismic wave  
propagation for earthquakes of the Dzhavakhetskiy Upland. Trudy  
Inst. geofiz. AN Gruz. SSR 19:51-57 '60. (MIRA 14:9)  
(Dzhavakhetskiy Range--Seismometry)

DZHIBLADZE, E. A.; GOTSADZE, O. D.

General averaged hodographs of the Caucasus. Trudy Inst. geofiz.  
AN Gruz. SSR 20:75-89 '62. (MIRA 16:1)

(Caucasus—Seismology)

*Mineral water*  
DZINDLADZE, G.Sh., Cand Med Sci--(disc) "Effect of Utsor Spring No 1 ~~st-~~  
~~mineral water~~<sup>up</sup> on the secretory and motor-vacuat<sup>or</sup> function of the stomach."  
(Experimental and clinical study)," Tbilisi, 1958. 26 pp (Tbilisi) State  
Med Inst), 500 copies (KL,26-58,116)

- 121 -

DZHI BLADZE, 1 ye.

Def. at  
Tbilisi State U:

[illegible]

**Dissertation for Degree of  
Candidate Geographical Sciences**

DZHIBLADZE, I.Ye.

Morphological characteristics of the Dzirula River terraces.  
Trudy Geog. ob-va Gruz. SSR 7:85-90 '63.

(MIRA 18:5)

L 04564-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/JW/JG

ACC NR: AF6032472

98 SOURCE CODE: UR/0056/66/051/003/0773/0776

AUTHOR: Dzhibladze, M. I.; Zvereva, G. A.; Kostin, V. V.; Murina, T. M.; Prokhorov, A. M.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Investigation of the luminescence line width and of the temperature shift of the continuous generation frequency of  $Dy^{2+}$  in  $CaF_2$

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 3, 1966, 773-776

TOPIC TAGS: laser, spectroscopy, solid state laser, paramagnetic laser, cw laser, fluorite, dysprosium

ABSTRACT: In view of the possible use of  $CaF_2$  crystals activated with divalent dysprosium as laser rods at  $2.36 \mu$  wavelength, the authors have calculated the probabilities of the nonradiative transitions of the  $Dy^{2+}$  ion in  $CaF_2$  which cause the homogeneous broadening of the luminescence lines, and also investigated the temperature dependence of the frequency shift of a  $Dy^{2+}:CaF_2$  cw laser in the vicinity of 78K. It is shown that the broadening of the luminescence line (the transition  $7T_1(2) \rightarrow 8T_2(2)$ ) is determined essentially by the lifetime of the lower level  $8T_2(2)$ , since the probability of the nonradiative transition from this level is of the order of  $10^{10} \text{ sec}^{-1}$ . The nonradiative transitions from the lower level,  $8T_2(2) \rightarrow 8E(2)$  and  $8T_2(2) \rightarrow 8T_1(1)$ ,

Card 1/2

L 04564-67

ACC NR: AF6032472

determined in the harmonic approximation by perturbation theory, had probabilities  $6.61 \times 10^9$  and  $7.13 \times 10^9 \text{ sec}^{-1}$ , respectively at  $0^\circ\text{K}$ . The temperature dependence of the shift of the cw frequency, measured by means of a Fabry-Perot interferometer with a procedure described earlier (DAN SSSR v. 161, 806, 1965), is found to correspond to a shift of  $0.0095 \pm 0.0025 \text{ cm}^{-1}$  per degree, which is approximately double the value calculated from the change in the crystal field with changing temperature. The discrepancy is attributed to the fact that the point-charge model of the crystal field is not a good approximation for  $\text{Dy}^{2+}:\text{CaF}_2$ . Orig. art. has: 2 figures, 4 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 05Apr66/ ORIG REF: 004/ OTH REF: 004/ ATD PRESS: 5100

Card 2/2 vmb



DZHI BLADZE, N.M.

DZHI BLADZE, N.M.

Treating malaria patients with quinoline No.45. Med.paraz. i paraz.  
bol.supplement to no.1:9-11 '57. (MIRA 11:1)

1. Iz kliniki Instituta malyarii i meditsinskoy parazitologii imeni  
S.S.Virsaladze Ministerstva zdavookhraneniya Gruzinskoy SSR.  
(MALARIA) (QUINOLINE)

*DZHI BLADZE, NV.*

DZHI BLADZE, N.V.; KIGURADZE, Ye. Sh.; AKHMETELI, L. I.

Approximate norms of the composition of peripheral blood and bone marrow in experimental dogs. Soob. AN Gruz. SSR 15 no.10:693-699 '54. (MIRA 8:9)

1. Akademiya nauk Gruzinskoy SSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno deystvitel'nym chlenom Akademii K.D.Eristavi.  
(Blood--Analysis and chemistry) (Marrow)

DZHIPLADZE, N. V.

DZHIPLADZE, N. V.

"Tissue Therapy, and Its Effect upon the Composition of Peripheral Blood and Bone Marrow." Tbilisi State Medical Inst, Tbilisi, 1955. (Dissertation for the Degree of Candidate of Medical Sciences)

SO: M-972, 20 Feb 56

DZHIBLADZE, N.V.; KIGURADZE, E.Sh.; BUACHIDZE, G.P.

Changes in the blood system during intestinal obstructions.  
Soob. AN Gruz. SSR 20 no.1: 105-112 Ja '58. (MIRA 11:6)

1. Institut eksperimental'noy i klinicheskoy khirurgii i gematologii  
AN GruzSSR, Tbilisi. Predstavleno akademikom K.D. Eristavi.  
(BLOOD--ANALYSIS AND CHEMISTRY) (INTESTINES--OBSTRUCTIONS)